

Gabapentin-related Fatal and Non-fatal Drug Overdoses among Pennsylvania Residents, 2017-2020

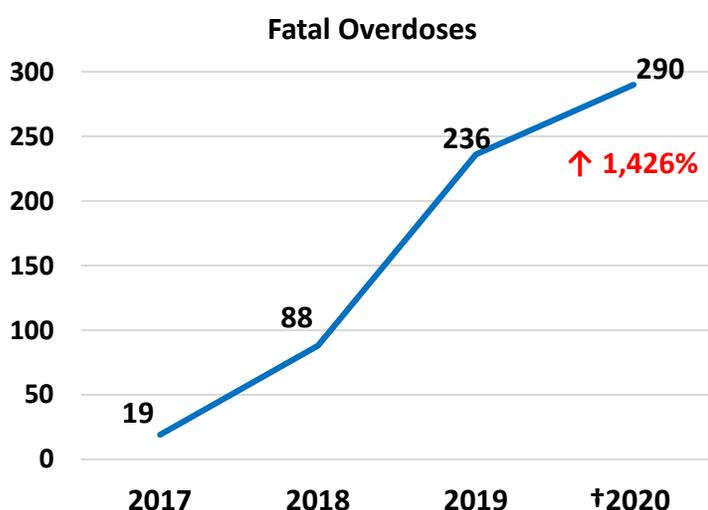
Gabapentin was initially approved in 1993 by the U.S. Food and Drug Administration for the treatment of epilepsy; in 2004, it was subsequently approved as an analgesic for post-herpetic neuralgia.^{1,2} Today, many prescribers embrace Gabapentin as a safer alternative to opioids for pain management. In 2016, 64 million Gabapentin prescriptions were dispensed making it the 10th most prescribed medication in the U.S.¹ Among adults, a coinciding increase in misuse, toxicity, use in suicide attempts, and associated healthcare utilization has been observed.^{3,4} Consequently, states have begun to classify Gabapentin as a Schedule V substance or mandate reporting of prescriptions to Prescription Drug Monitoring Program (PDMP) databases.³ A 2020 assessment showed that of the 54 PDMPs in existence in the US, 28 have the authority to monitor “drugs of concern” and 14 of them have included gabapentin on this list; 2 additional PDMPs collect data on all prescriptions.⁵

As of July 2022, there were 290 Gabapentin-related overdose deaths among Pennsylvania residents in 2020, a 1,426% increase from 2017. Key findings include:

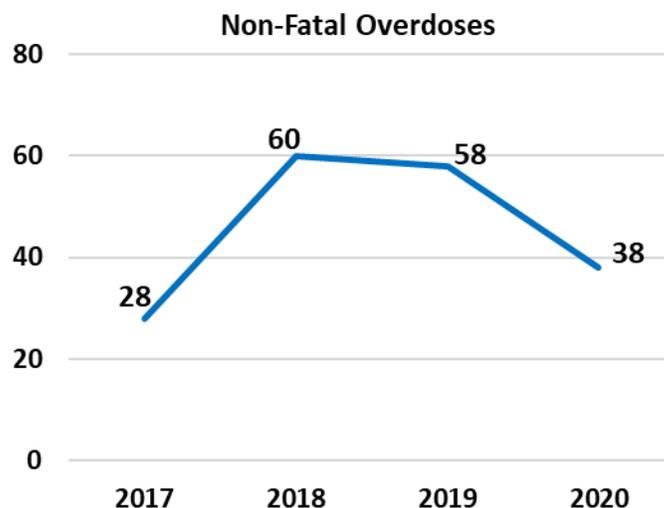
- Gabapentin-related non-fatal overdoses remained relatively stable between 2017 and 2020, ranging from 28 to 60 visits per year. However, drug specificity is often incomplete in non-fatal overdose records.
- Rates of fatal overdoses are similar between men and women, while rates of non-fatal overdoses in 2020 are higher among women (0.04 visits per 10,000 population) compared to men (0.02 visits per 10,000 population).
- In 2020, rates of both fatal (0.49 deaths per 10,000 population) and non-fatal (0.05 visits per 10,000 population) overdoses were highest amongst individuals 35-54 years of age.
- 85% of fatal overdoses in 2020 occurred among White persons and the rate of fatal overdose was slightly higher among White persons, compared to Persons of Color.
- While gabapentin-related deaths have increased, overdose deaths from gabapentin alone are rare (~1%).

1. Goodman, C.W. and A.S. Brett, *Gabapentin and Pregabalin for Pain - Is Increased Prescribing a Cause for Concern?* N Engl J Med, 2017. **377**(5): p. 411-414.
 2. Mack, A., *Examination of the evidence for off-label use of gabapentin.* J Manag Care Pharm, 2003. **9**(6): p. 559-68.
 3. Reynolds, K., et al., *Trends in gabapentin and baclofen exposures reported to U.S. poison centers.* Clin Toxicol (Phila), 2020. **58**(7): p. 763-772.
 4. Smith, R.V., J.R. Havens, and S.L. Walsh, *Gabapentin misuse, abuse and diversion: a systematic review.* Addiction, 2016. **111**(7): p. 1160-74.
 5. PDMP Training and Technical Assistance Center, *PDMP Policies and Capabilities: Results from 2020 State Assessment.*
www.pdmpassist.org/pdf/PDMP%20Policies%20and%20Capabilities%202020%20Assessment%20Results_20210111.pdf

Gabapentin-related* Overdose Deaths† among Pennsylvania Residents, 2017-2020



Gabapentin-related* Non-Fatal Overdoses†† among Pennsylvania Residents, 2017-2020

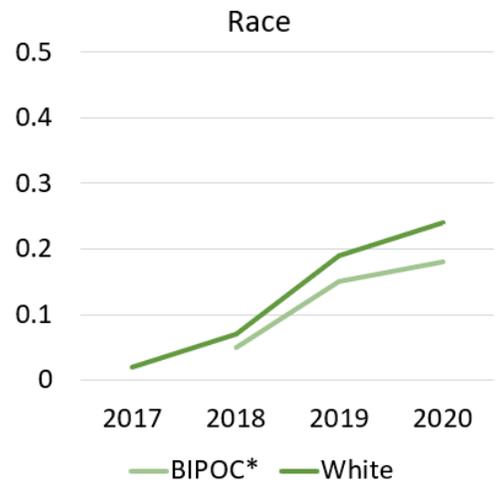
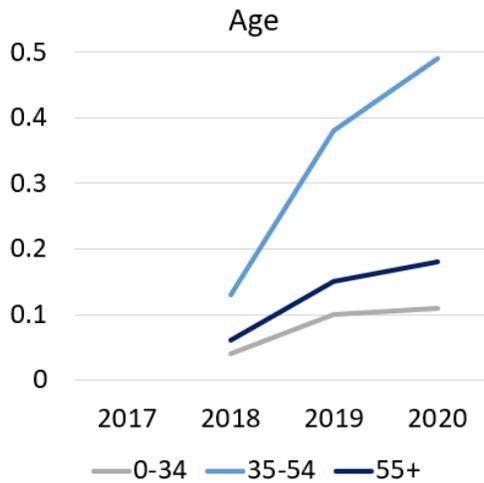
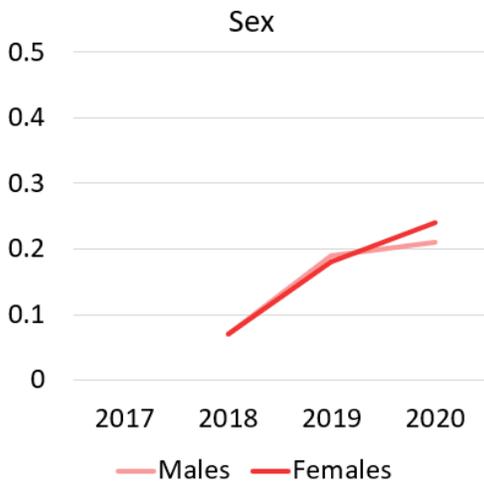


*Overdose deaths that include Gabapentin as a cause of death on the death certificate, or that include Gabapentin on toxicology when the death certificate doesn't list the drug(s) responsible for the overdose.

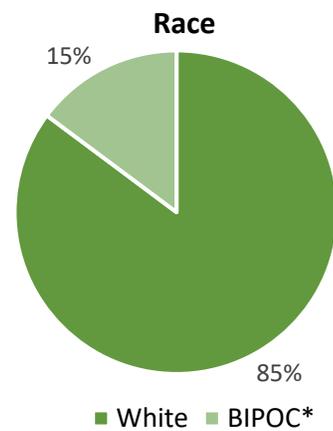
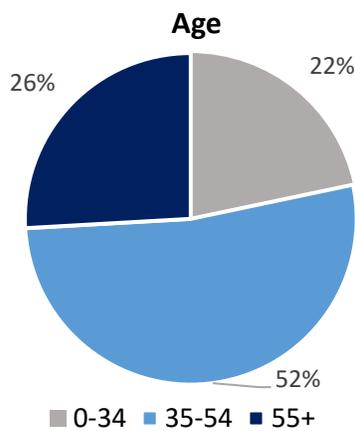
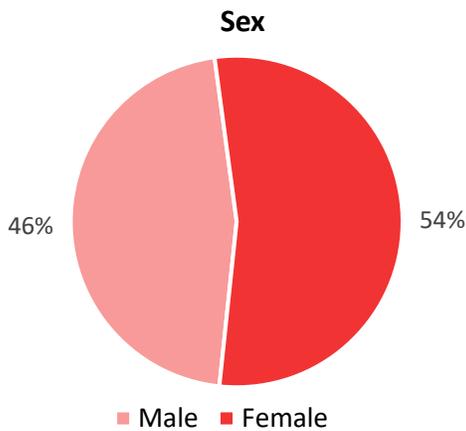
†Fatal overdose data includes death record data from the Bureau of Health Statistics and Registries at DOH, as well as toxicology and coroner/medical examiner records data through partnerships with individual county coroner's/medical examiners and the Department of Drug and Alcohol Programs. Counts do not include suicides or homicides where someone intended to harm another person by poisoning.

††Non-fatal overdose data includes syndromic surveillance data through our partnerships with emergency departments.

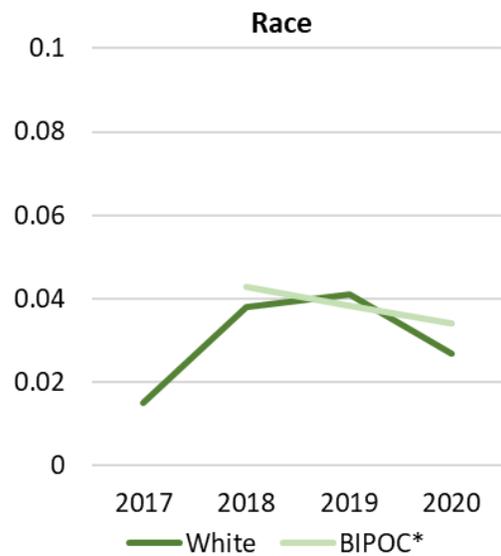
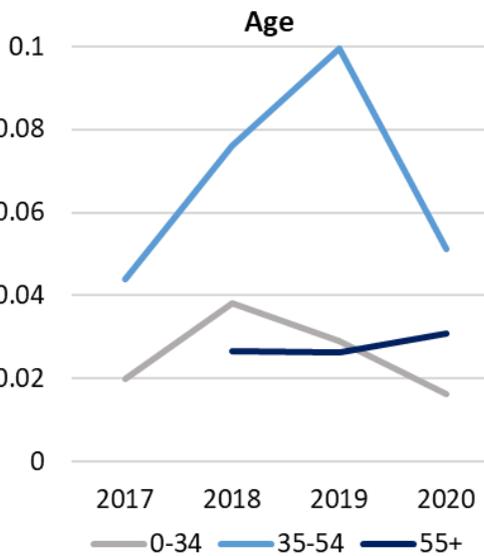
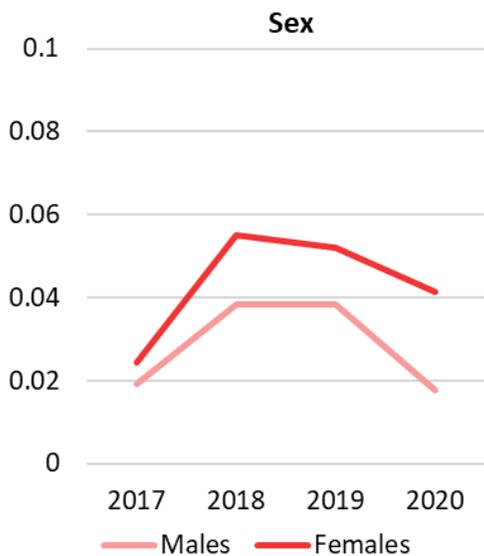
**Rates of Gabapentin-related Overdose Deaths per 10,000 Population by Demographic Characteristics
Pennsylvania Residents, 2017-2020****



**Proportion of Gabapentin-related Overdose Deaths by Demographic Characteristics
Pennsylvania Residents, 2020****



Rates of Gabapentin-related Non-Fatal Overdose Emergency Department Visits per 10,000 Population by Demographic Characteristics, Pennsylvania Residents, 2017-2020



*Black, Indigenous, Person of Color